

Water Level Monitoring Using a Druck Depth/Level Sensor

In this Tech Article from CAS DataLoggers and dataTaker, we describe the process of connecting the [Druck PTX 1830 depth/level sensor](#) to a dataTaker DT8x series data logger. These two components can function as a water level monitoring logger and record depth measurements. The Druck sensor outputs a 4-20mA signal and can be powered by the dataTaker's switchable 12V regulated voltage output.



Equipment required:

- [dataTaker DT8x data logger](#)
- Druck PTX 1830 depth sensor
- Wire

1. Connecting the sensor:

Connect the wires from the sensor to the datalogger as follows:

- Red Wire--12V terminal
- Blue Wire—Channel 1 # terminal
- Connect a wire between DGND and EXT# terminals

2. Taking measurements:

2.1 Basic measurement:

The basic measurement outputs a scaled output. Using the built-in dataTaker [dEX software](#), the code is as simple as this:

```
S1=0,10"m" 'scale a 4-20mA reading to a 0-10m value
```

```
1SSPWR=1 'turn on the 12V output
```

```
1#L("depth~m",S1) 'sample, scale and log depth
```

2.2 Full Program:

The full dataTaker dEX program samples the sensor once per hour and stores it to the datalogger internal memory.

BEGIN "PTX1830"

'Sample program Level sensor PTX 1830 (4-20mA)

'Sampling period: 1 sample / hour

S1=0,10"m" 'set scale of 4-20mA sensor

LOGON

'=====

' Schedule A

' - Logs to the internal memory (B:)

' - Logs up to 3MB of data records, overwrites when full

' - Runs every 1 hour

'=====

RA("B:",DATA:OV:3MB)1H

'control power and sample from the sensor

1SSPWR(W)=1 1#L("2-Minute Depth~m",S1,MD5000,FF3) 1SSPWR(W)=0

END

Using the dEX graphical configuration software, built into every [dataTaker](#), you can configure the same operation with a few mouse clicks and entering a few numbers.

DataTaker Series 4 Loggers:

The renowned [dataTaker Series 4 Dataloggers](#) can connect to nearly every sensor type, scaling and logging almost any physical value including Temperature, Voltage/Current, 4-20mA loops, Resistance, Strain gauges, Frequency, and more. They also provide a wide array of communications features including USB, Ethernet, MODbus and SDI-12. dataTaker loggers also feature a USB memory stick port to give you simple access to

the stored data when no communications options exist.

dataTaker's [dEX software](#) is preinstalled with all dataTaker dataloggers and has a browser accessed graphical interface allowing quick setup and configuration of the logger. This software is configured and run directly from a web browser enabling access either locally or remotely over the Internet. Operators can use either USB or Ethernet to connect to the datalogger and access the dEX application.

For more information on [Series 4 dataTaker dataloggers](#) for water level monitoring, or to find the ideal solution for your application-specific needs, contact a CAS Data Logger Applications Specialist at **(800) 956-4437** or visit our website at www.DataLoggerInc.com.